nucleic acid complement.

Cancel Claim 26.

27. (Amended) A method for depositing a quantity of fluid containing a nucleic acid onto an array surface having a plurality of nucleic acid binding agents stably associated therewith, said method comprising:

loading said fluid into a thermal inkjet head comprising an orifice and a firing chamber by contacting said orifice with said fluid in a manner sufficient for said fluid composition to flow through said orifice into said firing chamber;

positioning said thermal inkjet head filled with said fluid in opposing relation to said array surface; and

actuating said thermal inkjet head in a manner sufficient to expel said quantity of fluid onto said array surface to deposit said quantity of fluid on said array surface, wherein nucleic acids present in said deposited fluid are capable of hybridizing to their nucleic acid complement.

Cancel Claim 29.

Cancel Claim 30.

31. (Amended) A method for introducing a nucleic acid fluid sample to a nucleic acid binding agent, said method comprising:

positioning a thermal inkjet head filled with said nucleic acid fluid sample in opposing relation to a surface of an array, wherein said array comprises a plurality of nucleic acid binding agents stably associated with said surface;

actuating said thermal inkjet head in a manner sufficient to expel a quantity of said fluid sample onto said array surface wherein nucleic acids present in said deposited fluid are capable of hybridizing to their nucleic acid complement; and

allowing interaction between said fluid sample and said nucleic acid binding agent.

34. (Amended) A method for detecting the presence of a nucleic acid in a fluid sample containing said nucleic acid, said method comprising:

positioning a thermal inkjet head filled with said fluid sample in opposing relation to a surface of an array, wherein said array comprises a plurality of nucleic acid binding agents stably associated with said surface and at least one of said nucleic acid binding agents specifically hybridizes to said nucleic acid in said fluid sample;

actuating said thermal inkjet head in a manner sufficient to expel a quantity of said fluid sample onto said array surface wherein nucleic acid present in said deposited fluid are capable of hybridizing to their nucleic acid complement; and

detecting the presence of any binding complexes on said array surface between said at least one nucleic acid binding agent and said nucleic acid in said fluid sample on said array surface;

whereby the presence of said analyte in said fluid sample is detected.

Please enter the following new claims:

-- 44. (New) A method for depositing a quantity of fluid containing a nucleic acid or polypeptide onto an array surface having a plurality of nucleic acid or polypeptide binding agents stably associated therewith, said method comprising:

loading said fluid containing nucleic acid or polypeptide into a thermal inkjet head comprising an orifice and a firing chamber by contacting said orifice with said fluid in a manner sufficient for said fluid to flow through said orifice into said firing chamber;

positioning said thermal inkjet head filled with said nucleic acid or polypeptide containing fluid in opposing relation to said substrate surface; and

actuating said thermal inkjet head in a manner sufficient to expel a quantity of said fluid onto said substrate surface to deposit said quantity of fluid on said substrate surface.

45. (New) The method according to Claim 44, wherein said method further comprises applying back pressure to said head during said contacting step.